

U. S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
ASSISTANT SECRETARY FOR HOUSING-FEDERAL HOUSING COMMISSIONER

TO: DIRECTORS, HOUSING DEVELOPMENT DIVISION

Series and Series Number:

MATERIALS RELEASE
NO. 1264

ISSUE DATE August 23, 1995

REVIEW DATE August 23, 1998

SUBJECT: 1. Product

PYRO-GUARD Interior Fire Retardant Treated Wood

2. Name and Address
of Manufacturer

Hoover Treated Wood Products
P. O. Box 746
Thomson, GA 30824

Data on the nonstandard product described herein have been reviewed by the Department of Housing and Urban Development and determination has been made that it is considered suitable from a technical standpoint for the use indicated herein. This Release does not purport to establish a comparative quality or value rating for this product as compared to standard products normally used in the same manner.

This Materials Release cannot be used as an indication of endorsement, approval or acceptance by HUD of the described product, and any statement or representation, however made, indicating such approval, endorsement or acceptance by HUD is unauthorized. See Code 18, U.S.C. 709.

Any reproduction of this Release must be in its entirety.

Use: Interior Finish Construction and Structural Application

DESCRIPTION:

PYRO-GUARD interior fire retardant treated wood (FRTW) is pressure impregnated with PYRO-GUARD fire retardant chemical in accordance with The American Wood Preserves' Association (AWPA) Standard C20 and C27. PYRO-GUARD interior fire retardant treated wood shall be used in areas not exposed to the weather. It is produced in Hoover's Company-owned pressure treating plants and by authorized licensees. The pressure treating and kiln drying process at all plants is conducted in accordance with Hoover's quality control procedures and is monitored by Timber Products Inspection, Inc. In addition, PYRO-GUARD FRTW is under the follow-up procedures of Underwriters Laboratories, Inc.

PYRO-GUARD interior fire retardant treated wood shall have a Flame spread rating of 25 or less when subjected to ASTM e 84 tests of 30 minutes duration without evidence of significant progressive combustion.

Requirements:

PYRO-GUARD FRTW shall meet the following requirements:

- A. All plywood shall meet PS-1 and shall be grademarked by an approved agency.
- B. All Lumber shall be graded and marked by an American Lumber Standard Committee (ALSC) approved agency.
- C. American Wood Preservers' Association Standards C 20-93, Structural Lumber- Fire-Retardant Treatment By Pressure Processes, Interior Type A.
- D. American Wood Preservers' Association Standards C27-93 Plywood - Fire-Retardant Treatment By Pressure Processes, Interior Type A.
- E. Underwriters Laboratory, Inc. (ULI) ULI 723 Standards Test for Surface-Burning Characteristics of Building Materials rated FR-S. (ASTM 84 Test Method for Surface-Burning Characteristics of Building Materials).
- F. Military Specification MIL-L-19140E Lumber and Plywood, Fire Retardant Treated.

Applications:

All of the lumber species listed below are permitted for use in interior finish construction applications. Only Southern Pine species lumber has been evaluated for use in structural applications.

Southern Pine	Balsam Fir
Douglas Fir	Black Spruce
Alpine Fir	Jack Pine
Lodgepole Pine	White Pine
Englemann Spruce	Western Hemlock
White Spruce	Ponderosa Pine
Hem Fir	Red Spruce
Spruce-Pine-Fir	

All of the plywood species listed below are permitted for use in interior finish construction and structural applications.

Southern Pine	Douglas Fir
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Design:

- A. The Design of lumber members shall be in accordance with the National Design Specification for Wood Construction. The adjustment table below applies to PYRO-GUARD interior fire retardant treated Southern Pine lumber.

TABLE 1 - DESIGN VALUE ADJUSTMENTS FOR PYRO-GUARD® LUMBER

Property	Service Temperature To 100°F/38°C	PYRO-GUARD® Roof Framing, Climate Zone:		
		1A	1B	2
Extreme fiber in bending	.90	.71	.84	.90
Tension parallel to grain	.82	.57	.74	.82
Compression parallel to grain	1.00	1.00	1.00	1.00
Horizontal shear	.95	.95	.95	.95
Modulus of elasticity	.95	.95	.95	.95
Compression perpendicular to grain	.95	.95	.95	.95
Fasteners/connectors	.90	.90	.90	.90

Conditions and Limitations:

(a) Zone definition:

1 - Minimum roof live load or maximum ground snow load up to 20 psf:

A - Southwest Arizona, Southeast Nevada (Las Vegas-Yuma-Phoenix-Tucson triangle)

B - All other qualifying areas

2 - Maximum ground snow load over 20 psf

(b) Duration of load adjustments for snow loads; 7-day (construction) loads, and wind loads given in the National Design Specification for Wood Construction apply.

(c) Where lumber decking serves as both exposed ceiling and roof sheathing, use extreme fiber in bending modification factors of .60, .60, and .90 for zones 1A, 1B, and 2, respectively; except where rigid insulation is installed above the decking, a factor of .90 may be used for all zones.

(d) Modulus of elasticity values apply to lumber decking.

(e) Roof framing adjustments apply to roof systems with minimum ventilation areas per applicable code.

- B. Plywood panels shall conform to the requirements of PS 1-91 Exterior or Exposure 1. Face and back shall be Southern Pine or Douglas Fir. Panel design shall conform to Table 2 PYRO-GUARD Plywood Span Rating For Rated Sheathing.

TABLE 2 - SPAN RATING ADJUSTMENTS FOR PYRO-GUARD® PLYWOOD

PYRO-GUARD®						PYRO-GUARD®
Plywood Thickness, Inches	Untreated Roof/Subfloor Span Rating	Roof Sheathing, Max. Uniform Live Load, psf:				Subfloor Span, Inches
		Span, Inches	Climate Zone			
			1A	1B	2	
15/32, 1/2	32/16	24	16	36	68	16
19/32, 5/8	40/20	24	34	71	128	20
		32	16	36	69	20
		32	30	64	116	24
23/32, 3/4	48/24	48	--	18	36	24
		48	--	20	41	--
7/8	--	48	--	33	62	48

Conditions and Limitations:

- Only panels of all veneer and all softwood species construction, Exposure 1 or Exterior
- Nail size and spacing shall be as required for untreated plywood of same thickness
- Roof spans and loads apply to roof systems with minimum ventilation areas per applicable code.
- For low-sloped or flat roofs with membrane or built-up roofing having a perm rating less than 0.2: use rigid insulation between sheathing and roofing, or use next thicker panel than that shown for the span and load (e.g. 19/32 for 24", 23/32 for 32"); and use a continuous ceiling air barrier and vapor retarder.
- Panel edge clips required for roof sheathing: one midway between supports for 24" and 32" spans, two at 1/3 points between supports for 48" span. Clips shall be specifically extruded for the plywood thickness used.
- Dead load (DL) on sheathing of 8 psf assumed. If DL is less than 8 psf, the tabulated live load may be increased by the difference, or (8-DL) psf. Applicable material weights, psf: asphalt shingles - 2.0, 1/2" plywood - 1.5, 5/8" plywood - 1.8, 3/4" plywood - 2.2.
- Zone definition: See Note (a), Table 1
- PYRO-GUARD® treated plywood shall not be used in roof designs employing a radiant shield underneath the sheathing.
- 19/32" and 5/8" thickness shall be minimum 4 plies, performance rated; 23/32 and 3/4" minimum 5 plies, performance rated.
- Max. uniform live load 100 psf on subfloor spans, except 1-1/8 thickness on 48" span limited to 70 psf total load.

NOTE: These tables are based on strength tests of PYRO-GUARD® after extended exposure to elevated temperatures and moisture. —

Limitations:

PYRO-GUARD FTRW shall not be used where it will be exposed to rain, direct wetting, periodic condensation or in contact with the ground. Store PYRO-GUARD FTRW off the ground and shielded from the weather.

Quality Assurance:

PYRO-GUARD FTRW shall be produced in Hoover's company-owned plants and by authorized licensees. The pressure treating and drying processes shall be monitored by Timber Products Inspection, Inc. In addition, PYRO-GUARD FTRW shall be under the Follow-up Services of Underwriters Laboratories, Inc.

Certification and Marking:

Hoover Treated Wood Products shall certify that the PYRO-GUARD FTRW conforms to the requirements of this Materials Release (MR). Each piece of plywood and lumber certified as conforming to this MR shall be marked with the following information:

- A. Hoover Treated Wood Products Inc. (or authorized licensee name)
- B. PYRO-GUARD fire retardant treated plywood or lumber.
- C. ULI classified plywood 17P0 in accordance with AWPA C-27, interior Type A or ULI classified lumber 15P9 in accordance with AWPA C-20, interior Type A.
- D. KDAT (Kiln Dried After Treatment).
- E. Flame-spread and Smoke Developed Rating.
- F. Plant and location.
- G. HUD MR.

Warranty:

Hoover Treated Wood Products warrants PYRO-GUARD fire retardant treated plywood and lumber to be free of any defects due to faulty material and workmanship in the manufacturing process for a period of 20 years from the date of installation.

The liability of Hoover Treated Wood Products Inc. under this warranty shall be limited to replacement of defective materials and the cost of installation or at the option of Hoover, payment in lieu thereof.

This warranty is limited and applies to any material failure due to manufacturing only and does not cover nor will the manufacturer be liable for any defects or damages due to misuse, improper storage, lightning, or other causes beyond the manufacturer's control.

The manufacturer's warranty does not relieve the builder, in any way, of responsibility under the terms of the Builder's Warranty required by the National Housing Act or under any provisions applicable to any other housing program. A copy of the manufacturer's warranty shall be furnished by the builder to the homeowner.

MANUFACTURER'S RESPONSIBILITIES:

Issuance of this Materials Release (MR) commits the manufacturer to fulfill, as a minimum, the following:

1. Produce, label and certify the material, product or system in strict accordance with the terms of this MR.
2. Provide necessary corrective action in a timely manner for all cases of justified complaint, poor performance or failure reported by HUD.
3. When requested, provide the Office of Manufactured Housing and Regulatory Functions, Manufactured Housing and Construction Standards Division, HUD Headquarters, with a representative list of properties, in which the material, product or system has been used, including complete addresses or descriptions of locations and dates of installation.
4. Inform HUD in advance of changes in production facilities, methods, design of the product, company name, ownership or mailing address.

EVALUATION:

This MR shall be valid for a period of three years from the date of initial issuance or most recent renewal or revision, whichever is later. The holder of this MR shall apply for a renewal or revision 90 days prior to the Review Date printed on this MR. Submittals for renewal or revision shall be sent to HUD Headquarters. Appropriate user fees shall be sent to:

U. S. Department of Housing and Urban Development
Technical Suitability of Products Fees
P. O. Box 954199
St. Louis, MO 63195-4199

The holder of this MR may apply for revision at any time prior to the Review Date. The revision may be in the form of a supplement to the MR.

If the Department determines that a proposed renewal or supplement constitutes a revision, the appropriate User Fee for a revision will need to be submitted in accordance with Code of Federal Regulations 24 CFR 200.934, "User Fee System for the Technical Suitability of Products Program," and current User Fee Schedule.

CANCELLATION:

Failure to apply for a renewal or revision shall constitute a basis for cancellation of the MR. HUD will notify the manufacturer that the MR may be canceled when:

1. conditions under which the document was issued have changed so as to affect production of, or to compromise the integrity of the accepted material, product, or system,
2. the manufacturer has changed its organizational form without notifying HUD, or
3. the manufacturer has not complied with responsibilities it assumed as a condition of HUD's acceptance.

However, before cancellation, HUD will give the manufacturer a written notice of the specific reasons for cancellation, and the opportunity to present views on why the MR should not be canceled. No refund of fees will be made on a canceled document.

This Materials Release is issued solely for the captioned firm,
and is not transferable to any person or successor entity.
